Office Action Summary	Application No.	Applicant(s)	
	10/587,165	AKKERMAN ET AL.	
	Examiner	Art Unit	
	JARREAS C. UNDERWOOD	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 September 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) *18* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,5-14,17 and 19-23* is/are rejected.

7)☒ Claim(s) *3,4,15 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *20090916*.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 8/11/2009 have been fully considered but they are not persuasive.

During patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification. In re Hyatt, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000). Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

1. Regarding the 35 U.S.C. 103 rejection of claims 1 and 19, applicant argues on page 9 that Lottici discloses that the bottle moves along a conveyor in a predetermined travel zone while experiencing a predetermined rotation, ensuring that the bottle is oriented in a predetermined angle. Therefore, Lottici does not have a reason to contemplate providing an orientation determining means.

Examiner's position is that column 3, lines 46-49 teach the bottles are oriented in a random manner. Column 4, lines 6-12 teaches the need to rotate the bottle more than 360 degrees in order to insure viewing the entire circumference, and column 6, lines 2-28 teach reconstructing the lateral surface and comparing it to a reference image. In order to compare the images it would be necessary to determine the orientation of the reconstructed image (e.g. which side is 'front'). Lottici is therefore capable of determining the orientation of a bottle.

2. Regarding the 35 U.S.C. 103 rejection of claims 1 and 19, applicant argues on pages 9-10 that Lottici only uses an illumination device, not irradiating means.

Examiner's position is that the terms are not different, especially as applicant refers to the invention contains elements described as both irradiating means (paragraph 0006) and illuminating means (paragraph 0055).

3. Regarding the 35 U.S.C. 103 rejection of claims 1 and 19, applicant argues on page 10 that Lottici does not pertain to the detection of contamination of a container.

Examiner's position is that contamination is not necessarily internal to a container, and the language of the claim does not exclude external contamination detectable by Lottici.

4. Examiner's position is that the applicant's arguments are not persuasive for the independent claims. Accordingly, the rejection of the dependent claims is sustained in the absence of persuasive arguments to the contrary.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 7-9, 12-15, 19, 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lottici (EP 0 872 724).

1. As to claim 1, Lottici teaches a device for determining a possible presence of contamination of a container with a decorative exterior, comprising:

an irradiating means (Figure 1, element 14) for irradiating the container with at least a first wavelength,

a first recording means (Figure 1, element 13) for recording a radiation sample of radiation during interaction of the radiation with at least a part of the container,

an orientation determining means (column 5, line 47 – column 6, line 43) for determining a rotational orientation of the container relative to the first recording means, and

a comparing means (column 6, lines 15-28) for comparing the sample to a reference matching the rotational orientation of the container relative to the first recording means during the recording to determine the possible presence of contamination.

While Lottici fails to explicitly teach determining and comparing the rotational orientation, it would have been obvious that the invention of Lottici is sufficient to perform such a function from analyzing the image slices (column 6, lines 2-5) and identifying components (column 6, lines 23-24) that would indicate orientation. It would have been obvious to one of ordinary skill in the art at the time of invention to determine and compare the rotational orientation in order to better analyze the labels.

2. As to claim 7, Lottici teaches everything claimed, as applied above in claim 1, in addition the first radiation sources are positioned behind the container relative to the container during making of the recording wherein the radiation irradiates the container (Figure 1, the bottles rotate more than 360 degrees therefore at some point the sources are behind the bottles).

3. As to claim 8, Lottici teaches everything claimed, as applied above in claim 1, in addition a selecting means for selecting a part of the recording of a part of the container as an assessment part, on the basis of which part the assessment is carried out (column 6, lines 2-5).

4. As to claim 9, Lottici teaches everything claimed, as applied above in claim 1, in addition the first recording means includes at least one camera (Figure 1, element 13).

5. As to claim 12, Lottici teaches everything claimed, as applied above in claim 1, in addition a composing means for composing, on the basis of at least one of the radiation sample and parameters, a robust reference image or a reference image with permissible deviation values (column 6, lines 6-9), on the basis of which image acceptable deviations in the decorative exterior within a series of containers can be taken into account during selection of containers (column 6, lines 10-28).

6. As to claim 13, Lottici teaches everything claimed, as applied above in claim 1, in addition a selecting means for selecting a part of the recording of a part of the container as an assessment part (column 5, line 57 – column 6, line 9), and

a processing means for producing, on the basis of the radiation sample or the assessment part, a flat representation thereof (column 6, lines 2-28).

7. As to claim 14, Lottici teaches everything claimed, as applied above in claim 13, in addition a composing means for composing, on the basis of the radiation sample, a robust reference image with permissible deviation values, wherein the comparing means are embodied in order to compare the flat representation to the robust reference image (column 6, lines 2-43).

8. As to claims 19 and 22, the method would flow from the apparatus of claim 1.

9. As to claim 21, the method would flow from the apparatus of claim 1. Examiner refers applicant to Figure 1, element 1.

Claims 2, 6, 20, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lottici in view of Axelrod (United States Patent 5,444,535).

10. As to claim 2, Lottici teaches everything claimed, as applied above in claim 1, in addition a second irradiating means (Figure 1, elements 14). Lottici fails to teach means for emitting radiation of at least a second wavelength. However to do so is well known as taught by Axelrod. Axelrod teaches emitting radiation of at least a second wavelength (Figure 10, elements 1 and column 4, line 67 – column 5, line 4). It would have been obvious to one of ordinary skill in the art at the time of invention to emit radiation of at least a second wavelength in order to compensate for various absorption bands.

11. As to claim 6, Lottici teaches everything claimed, as applied above in claim 1, with the exception of a polarizing means for polarizing radiation of the irradiating means. However to do so is well known as taught by Axelrod. Axelrod teaches a polarizing means for polarizing radiation of the irradiating means (Figure 9, element 5). It would have been obvious to one of ordinary skill in the art at the time of invention to have a polarizing means for polarizing radiation of the irradiating means, in order to enhance the rejection rate of reflected noise without undue collateral defect-signal attenuation.

12. As to claims 20 and 23, the method would flow from the apparatus of claim 2. Examiner refers applicant to Axelrod Figure 10.

Claims 5, 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lottici in view of Axelrod, and in further view of Jacobs (United States Patent 4,160,601).

13. As to claim 5, Lottici in view of Axelrod teaches everything claimed, as applied above in claim 2, with the exception of a filter means for making recordings in optically independent manner with the recording means on the basis of radiation of the first or of the second wavelength. However to do so is well known as taught by Jacobs. Jacobs teaches a filter means for making recordings in optically independent manner with the recording

means on the basis of radiation of the first or of the second wavelength (Figure 1, steps 20-30). It would have been obvious to one of ordinary skill in the art at the time of invention to have a filter means for making recordings in optically independent manner with the recording means on the basis of radiation of the first or of the second wavelength, in order to determine various absorption spectrums.

14. As to claim 10, Lottici in view of Axelrod in further view of Jacobs teaches everything claimed, as applied above in claim 5, in addition Jacobs teaches the filter means includes an optical filter (Figure 1, step 20). It would have been obvious to one of ordinary skill in the art at the time of invention to have the filter means comprise an optical filter, in order to highlight the wavelength intensities.

15. As to claim 11, Lottici in view of Axelrod in further view of Jacobs teaches everything claimed, as applied above in claim 5, in addition Jacobs teaches the filter means includes an electronic filter (Figure 1, steps 90, 100). It would have been obvious to one of ordinary skill in the art at the time of invention to have the filter means comprise an electronic filter, in order to more easily carry out multispectral analysis.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lottici in view of Krieg et al (United States Patent 5,405,014).

16. As to claim 17, Lottici teaches everything claimed, as applied above in claim 1, with the exception of the irradiating means irradiate the container substantially from the top or bottom. However to do so is well known as taught by Krieg. Krieg teaches the irradiating means irradiate the container substantially from the top or bottom (Figure 1). It would have been obvious to one of ordinary skill in the art at the time of invention to have the irradiating

means irradiate the container substantially from the top or bottom, in order to more easily identify contaminants that have settled to the bottom of the bottle.

Allowable Subject Matter

Claims 3-4, 15-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

17. As to claim 3, the prior art of record, taken alone or in combination, fails to disclose or render obvious a device comprising second recording means for determining, by way of a second recording, the orientation of the container relative to the first recording means on the basis of the mutual positions and orientations of the first recording means, the second recording means and the container at the time of the first and second recording, in combination with the rest of the limitations of the claim.

18. As to claim 4, the prior art of record, taken alone or in combination, fails to disclose or render obvious a device wherein the orientation determining means comprise recording means for making at least one recording for the purpose of determining the orientation of the container relative to the first recording means on the basis of the mutual position and orientation of the recording means and the container at the time of the at least one recording, in combination with the rest of the limitations of the claim.

19. As to claim 15, the prior art of record, taken alone or in combination, fails to disclose or render obvious a device comprising a second recording means for recording a second recording, and a second comparing means for comparing a recording of the second recording means to a second reference image or the robust reference image for the

purpose of detecting deviations on the decorative exterior, in combination with the rest of the limitations of the claim.

Conclusion

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JARREAS C. UNDERWOOD whose telephone number is (571) 272-1536. The examiner can normally be reached on Monday-Friday 0530-1400.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley can be reached on (571) 272-2059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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